LDT-PNL-CV-RGB-WH

Touch-Wheel Constant-Voltage RGB Panel

A wall-mounted touch wheel controller with direct PWM outputs for rgb LED loads. A compatible RF remote may also be paired; this is not merely a wireless wall transmitter.

Model specifications

Product function	Wall-mounted constant-voltage LED controller
Lighting type	RGB
Input / output voltage	12-24 VDC
LED output channels	3
Maximum output current	4 A/channel
Controls	Touch wheel + compatible RF 2.4 GHz remote
PWM frequency	1 kHz
Operating temperature	-30 to +55 °C
Maximum case temperature	+85 °C
Panel dimensions	86 x 86 x 33 mm
Mounting	86-size wall box; verify available depth
Finish options	White or black glass; confirm selected finish

This panel uses a low-voltage DC supply. Do not confuse it with an AC-powered DMX/RF master or a battery wall remote.

The following technical-reference pages retain the complete diagrams, dimensions, settings and installation instructions. Select the lighting variant stated on this cover; family diagrams may also illustrate other variants.

RF | DIM / DUO / RGB / RGBW

Wall Mounted Touch Panel


DIM


DUO


RGB


RGBW

- Touch panel single color, dual color, RGB or RGBW PWM constant voltage controller.
- Ultra sensitive high strength glass touch panel with touch color wheel in the middle and backlighting.
- Compatibility with RF 2.4G single zone or multiple zone remote control.
- White & Black glass panel available.

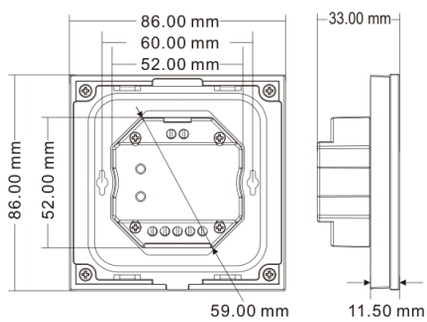
CE RoHS RED

Technical Parameters

Input and Output				
Model No.	DIM	DUO	RGB	RGBW
Input voltage	12-48VDC	12-48VDC	12-24VDC	12-24VDC
Input current	10.5A	10.5A	12.5A	12.5A
Output voltage	2 x (12-48)VDC	2 x (12-48)VDC	3 x (12-24)VDC	4 x (12-24)VDC
Output current	2CH, 5A/CH@12-24V 3A/CH@36-48V	2CH, 5A/CH@12-24V 3A/CH@36-48V	3CH,4A/CH	4CH,3A/CH
Output power	120-288W	120-288W	144-288W	144-288W
Output type	Constant voltage	Constant voltage	Constant voltage	Constant voltage
PWM frequency	1K/2K/8K/16KHz	2K/8KHz	1KHz	1KHz
Light type	Single color	Dual color	RGB	RGBW

Safety and EMC	
EMC standard	EN 62479:2010 ETSI EN 301 489-1 V2.2.3 ETSI EN 301 489-17 V3.2.4
Safety standard	EN 61347-1:2015+A1:2021 EN 61347-2-13:2014+A1:2017
Radio Equipment	ETSI EN 300 328 V2.2.2
Certification	CE RED
Environment	
Operation temperature	Ta: -30°C ~ +55°C
Case temperature (Max.)	Tc: +85°C
Package	
Size	L112 x W112 x H50mm
Gross weight	0.230kg

Mechanical Structures and Installations

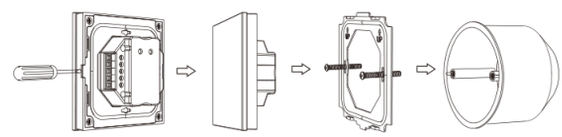


Typical base as below:


European style


86 size

Installation diagram:


Uninstall Touch panel Baseplate Base

Match Remote Control (two match ways)

The touch panel controller can also match with the RF remote (optional).
End user can choose the suitable match/delete ways. Two options are offered for selection:

Use On/Off key

Match:
Turn on light, turn off, immediately press the On/Off key of the panel for 5s, then press on/off key (single zone remote) or zone key (multiple zone remote) of the RF remote within 5s.
The LED indicator fast flash 3 times means match is successful.

Delete:
Turn on light, turn off, immediately press the On/Off key of the panel for 10s, delete all matched RF remote.
The LED indicator fast flash 6 times means all matched remotes were deleted.

Use Power Restart

Match:
Switch off the power, then switch on power, repeat again, immediately short press on/off key (single zone remote) or zone key (multiple zone remote) 3 times on the remote.
The light blinks 3 times means match is successful.

Delete:
Switch off the power, then switch on power, repeat again, immediately short press on/off key (single zone remote) or zone key (multiple zone remote) 5 times on the remote.
The light blinks 5 times means all matched remotes were deleted.

Key function

DIM panel



- Turn on/off light.
- Brightness wheel.
- Brightness+, 10 levels.
- Brightness-, 10 levels.
- 4 scenes, short press recall the scene, long press 5s save current brightness into scene 1/2/3/4.

DUO panel



- Turn on/off light.
- Three color temperature switching (warm white, natural white, cool white)
- Brightness +, 10 levels.
- Brightness -, 10 levels.
- Color temperature wheel.
- 4 scenes, short press recall the scene, long press 5s save current brightness into scene 1/2/3/4.

RGB panel



- Turn on/off light.
- Color wheel.
- Brightness, 10 levels.
- Adjust dynamic mode speed, 10 levels.
- Short press play 10 built-in dynamic mode, long press 2s run mode-cycle.

RGBW panel



- Turn on/off light.
- Color wheel.
- Adjust dynamic mode speed or static color brightness, 10 levels.
- Short press play 10 built-in dynamic mode, long press 2s run mode-cycle.
- Short press get red, green, blue, white color, long press adjust each color brightness.
- 4 scenes, short press recall scene, long press 5s to save the current color into scene 1/2/3/4.

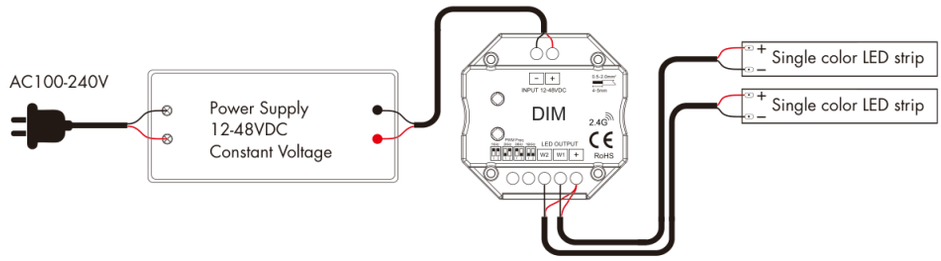
Note: After touch power key to turn off light, long press power key for 5 seconds will turn on or turn off tone(DIM,DUO out key tone).

Scene locking:

- Scene keys can be set to locked state, cancel long press for 5 seconds to save the scene function (default scene is not locked).
- Short press the panel on/off key, turn on the light first, then turn off the light, immediately long press the panel on/off key for 5 seconds, then immediately long press any one scene key for 5 seconds to set all scene keys to locked state.
- Short press the panel on/off key, turn on the light first, then turn off the light, immediately long press the panel on/off key for 5 seconds, then immediately long press any one scene key for 10 seconds to restore all scene keys to unlocked state.

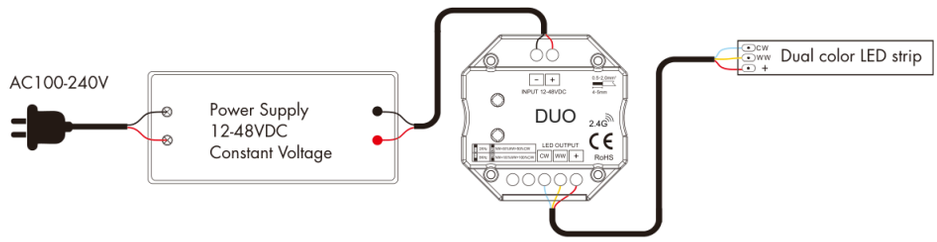
Wiring diagram

DIM panel



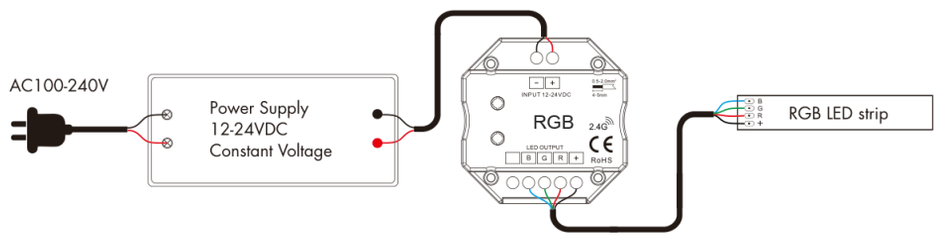
DIP switch select four PWM frequency: 1KHz, 2KHz, 8KHz or 16KHz.
Higher PWM frequency, will cause lower output current, higher power noise, but more suitable for camera(No flickers for video).

DUO panel

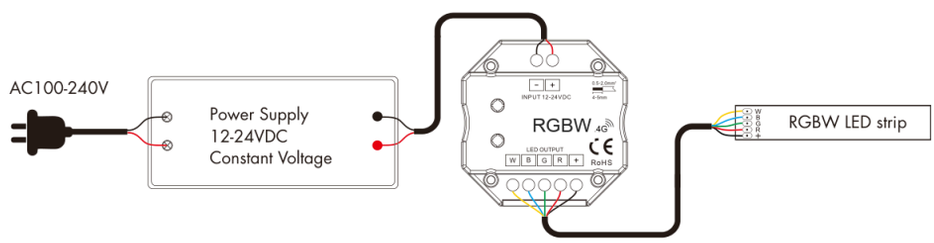


DIP switch 1 select two PWM frequency: 2KHz or 8KHz.
Higher PWM frequency, will cause lower output current, higher power noise, but more suitable for camera(No flickers for video).
DIP switch 2 select color temperature output mode: NW=50%WW+50%CW or NW=100%WW+100%CW.

RGB panel



RGBW panel



RGB/RGBW dynamic mode list (only for RGB' RGBW

No.	Name	No.	Name
1	RGB jump	6	RGB fade in and out
2	RGB smooth	7	Red fade in and out
3	6 color jump	8	Green fade in and out
4	6 color smooth	9	Blue fade in and out
5	Yellow cyan purple smooth	10	White fade in and out